Solar Engine® Dusk/Dawn Simulator User Manual

"Solar Engine" is a device which provides automatic slow brightening and dimming process of light. The unit can handle loads such as: traditional incandescent or halogen lamps, special dimmable compact fluorescent lamps, 12V halogens and tube fluorescent lamps with specialized electronic transformer (should allows dimming with trailing edge method). The device can control light sources up to 150W.

Applications:
The product is designed to simulate dawn and dusk on user's lamp. Solar Engine can be used in baby room, in Solar Therapy and in terraristics or other hobby activities.

Benefits:
- Elimination of the pet's stress related to sudden light up.
- Simulation of sun and the effect of cloudiness
- You can set a different scenario, dawn / dusk for each day of the week
- Noticeable prolongation of bulb life

Operation:
The user have opportunity to select dawn and dusk simulation start time. Brightening / Dimming period is fixed and is equal to 1 hour. User has ability to manually start the simulation. In order to manually start the process of brightening or dimming press the "ON/AUTO/OFF" button as many times as you see **MANUAL ON** or **OFF** icon for respectively lightening or dimming.

Rapid brightening/dimming procedure:
User can switch on and off the light rapidly (lighten or dim load as quick as 2 seconds).
Push "ON/AUTO/OFF" button very fast at least 4 times and leave desired final state icon on timer display (**MANUAL ON** or **OFF** icon for respectively lightening or dimming).

Current time (clock) setting:
To set the current time on the display, simultaneously press the "CLOCK" and a button:
"WEEK" to set the day of the week
"HOUR" button to set the current hour
"MINUTE" button to set minutes

Warning!
Pressing the "MASTER CLEAR" button will result in immediate reset device to default settings.

D**awn and dusk start time setting.**
You can enter up to eight cycles of brightening / dimming. After pressing the "TIMER", the cycle indicator appears in the lower left corner of the display, as for example "ON 1" (start lightening) or "OFF 1" (start dimming).
Press "TIMER" button (**ON 1)** and use "WEEK", "HOUR" "MINUTE" to set desired brightening start hour.
Press "TIMER" again (**OFF 1**) use "WEEK", "HOUR" "MINUTE" to set desired dimming start hour.
Press "CLOCK" in order to end up this procedure.

To change or delete a programmed cycle of dimming / brightening, display set time and press the "RES / RCL".

Special features:
SUMMER time: Press "CLOCK" and than "AUTO" button simultaneously to change this parameter.

12/24 HOUR mode:
Press "CLOCK" and than "TIMER" button simultaneously to switch between 12 and 24 hours mode.

RANDOM: Means random start time of down and dusk.

EXAMPLE:
Sunrise at 7:00 am, sunset at 21:00. The current time is 12:00.
Press the "TIMER" and set **ON 1** to **7:00** AM for each day of the week, set **OFF 1** to **21:00** PM for each day of the week.
Exit the "TIMER" mode by pressing "CLOCK" button. Light up the bulb using the procedure described in "Rapid brightening / dimming" section.
Leave the device in **AUTO** mode (ON/AUTO/OFF button). The bulb will start to dim at 21 o'clock.

TECHNICAL SPECIFICATION:
Supply voltage: 230V, 50Hz
Maximum load: 150W
Permitted type of load:
- incandescent bulb for 230V,
- halogen bulb for 230V,
- dimmable compact fluorescent lamp 230V,
- electronic transformers which allows dimming at primary side (trailing edge dimming).

Brightening / dimming period: 1h
Weight: 0.17 kg